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EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT PAPER NUMBER

1742

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/821,723

**Applicant(s)**

KODAS ET AL.

**Examiner**

George P. Wyszomierski

**Art Unit**

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/5/2005 (RCE, IDS).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-120 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-120 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/5/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1742

1. The Request for Continued Examination (RCE) under 37 CFR 1.114 filed May 5, 2005, including an Information Disclosure Statement and the fee required under 37 CFR 1.17(e) has been received and is considered proper. Prosecution continues as follows.

2. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 1 recites forming reacted precursor particles "in a dispersed state", and it is unclear what substance the particles would be dispersed in, e.g. in some element of the precursor or in the atmosphere of the reactor.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 31, 40, 41, 44, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Gupta et al. (U.S. Patent 6,620,351).

Gupta discloses making particles of a desired substance (e.g. medicaments) by applying a dispersion including at least two or more materials which react on a surface to form the desired substance. A reactor condition (e.g. vibration of the surface) can be varied so as to produce a differential condition in the final products, such as a difference in size or agglomeration of the particles, and this differential condition can be measured. Thus, all aspects of the claimed invention are held to be fully disclosed by Gupta et al.

5. Claims 1-5, 7-22, 31, 32, 34-42, 44, 46, 64-67, 69-84, 93-95, and 97-112 are rejected under 35 U.S.C. 102(b) as being anticipated by Schultz et al. (U.S. Patent 5,985,356).

Schultz discloses a process which includes depositing a plurality of reacted materials upon specific regions of a substrate and analyzing various properties of the deposited materials. The materials may be a plurality of materials of different compositions. As to the "dispersed" limitation of claim 1, the materials made in the Schultz process would be dispersed within some larger substance, i.e. this limitation as presently claimed does not define any specific distinction between the prior art and the claimed invention. Specific disclosure of various aspects of the claimed invention can be found in the prior art as follows:

- a) Claims 3, 32, 66 and 95--See Schultz column 30, lines 31-34.
- b) Claims 7, 8, 69, 70, 97 and 98--See Schultz columns 34 and 35.
- c) Claims 9, 71 and 99--See Schultz column 20, lines 19-22.
- d) Claims 10-12, 37-39, 72-74, and 100-102--See Schultz column 15, line 45 to column 16, line 39.
- e) Claims 14, 76 and 104--See Schultz column 9, lines 22-23.

Art Unit: 1742

f) Claims 15, 42, 77 and 105--See Schultz Figures 3H, 3I, 5D, 5E, 5F, 5G, 5H, and 5I and their corresponding description in the specification of Schultz.

g) Claims 16, 17, 78, 79, 106 and 107--See Schultz column 17, lines 14-17.

h) Claims 19-22, 81-84, and 108-112--See Schultz columns 6 and 7.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 43, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al.

Gupta, described in item no. 4 supra, does not specifically disclose analyzing particles as they exit the reactor, and does not specifically disclose measuring aerodynamic diameter or magnetic properties. However,

a) Gupta column 9, lines 47-50 indicates that online measurements can be taken in the prior art process and that temperature and pressure sensors can be employed "at various locations". Further, it would clearly be seen as beneficial by one of skill in the art to measure properties as soon as possible, e.g. as soon as reacted particles are produced, in order to minimize the production of materials with unwanted properties. Thus, to perform measuring or sensing at a location where the particles leave the reactor in Gupta would fall within the purview of the process as disclosed therein.

b) Measuring of size, as done by Gupta, would include measuring aerodynamic diameter as presently claimed. Further, example 5 of Gupta produces coated magnetite particles, and

one of ordinary skill in the art would be concerned with the magnetic nature of such a material and would therefore desire to measure magnetic properties in such a material.

Consequently, a prima facie case of obviousness is established between the disclosure of Gupta and the presently claimed invention.

8. Claims 6, 23-30, 33, 43, 45, 47-63, 68, 85-92, 96, and 113-120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz et al.

The Schultz process, described supra, does not specify the amount of variance in concentration, temperature or composition as recited in instant claims 6, 33, 68 or 96, is not specific to the making of the particular classes of materials as recited in instant claims 23-27, 47-63, 85-89, and 113-117, the particle size of claims 28-30, 90-92, or 118-120, continuously analyzing particles as they exit a reactor as in claim 43, or measuring the precise property of claims 45 and 62. These differences are not seen as resulting in a patentable distinction between the prior art process and that presently claimed because:

a) The precise amounts of variance in the processing parameters would depend largely upon the properties desired in the final materials. The numerical values as presently claimed would fall within the purview of the variation in reaction parameters as disclosed in Schultz column 30, lines 17-65.

b) The making of the types of materials as recited in the instant claims would fall within the general classes of materials as disclosed in columns 6 and 7 of Schultz.

c) With regard to particle size, because the reactants used and the conditions of reaction may be the same in either the prior art or the claimed invention, one of skill in the art would believe that the particle size of the final products would likewise be the same in either instance, absent evidence to the contrary.

d) One important facet of the Schultz process is that arrays of materials can be screened for various properties, i.e. as disclosed in columns 26-28 of Schultz. It would clearly be seen as beneficial by one of skill in the art to perform this screening as soon as possible, e.g. as soon as reacted particles are produced, in order to minimize the production of materials with unwanted properties.

e) The properties of claims 45 and 62 would fall within the "Morphology" category in Table I of Schultz.

Consequently, a prima facie case of obviousness is established between the disclosure of Schultz et al. and the presently claimed invention.

9. Claims 1-5, 13-15, 18-21, 24-27, 31, 40-43, 64-67, 75-77, 80-83, 86-89, 93-95, 103-105, 108-111, and 114-117 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-85 of U.S. Application Serial No. 09/821,848.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '848 application essentially define certain embodiments of the process as set forth in the instant claims, i.e. preferably an embodiment in which the materials produced and analyzed include a layered linear system comprising polymer and/or electrocatalyst materials. The steps of the process as defined in the instant claims are performed in the same order and for the same purpose as in the '848 claims. Because practicing the process according to the '848 claims would necessitate practicing the process of the instant claims, no patentable distinction is seen between the two sets of claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not yet been patented.

Art Unit: 1742

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. The IDS filed 5/5/2005 has been considered. The IDS cited one document, namely WIPO Publication 01/79808. The '808 publication is based on an International Application which did not designate the US, and was published subsequent to the effective filing date of the present application.

12. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within




Art Unit: 1742

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306. On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER  
GROUP 1700

GPW

July 6, 2005